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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/681,822	06/11/2001	Michael D. Sandoe	71264-6	6873

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EXAMINER

PIERCE, JEREMY R

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 02/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/681,822

Applicant(s)

SANDOE ET AL.

Examiner

Jeremy R. Pierce

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 11 June 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-64 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11, 16-43 and 52-64 is/are rejected.
- 7) ☒ Claim(s) 12-15 and 44-51 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.

- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 25 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 25 recites, "A laminate according to claim 1, wherein the core layer regular fibers from the balance of the fiber in the core layer." The Examiner does not know what this means.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily

published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 1-11, 16-31, 33-38, 40, 42, 43, and 52-64 rejected under 35 U.S.C. 102(e) as being anticipated by Van Kerrebrouck (U.S. Patent No. 6,066,388).

Van Kerrebrouck discloses two outer fiber layers and one inner fiber layers, both constructed of binder fibers and constructive fibers (column 2, lines 45-54). The denier of the binder fibers and constructive fibers in the outer layer is between 0.5 and 28 dtex (column 3, lines 43 and 49). The denier of the binder fibers of the inner layer is between 3 and 40 dtex (column 3, line 46). The denier of the constructive fibers of the inner layer is between 3 and 100 dtex (column 3, line 52). Van Kerrebrouck disclose that some of the fibers of the outer layer are finer than some of the fibers of the inner layer (column 3, lines 36-38), which would inherently mean that some fibers of the outer layer are not finer than some fibers of the inner layer. With regard to claims 2 and 34, Van Kerrebrouck discloses using polyester, polyamide, and polyolefin (column 3, lines 58-60). With regard to claims 3, 10, and 35, Van Kerrebrouck discloses using bi-component fibers (column 5, lines 1-7). With regard to claims 6, 8, and 40, the core layer may have a basis weight of 400 grams per square meter (column 8, line 52). With regard to claim 11, single-component binding fibers may be used (column 5, lines 1-7). With regard to claims 16 and 17, Van Kerrebrouck discloses impregnating the laminate with binder and adding finishing layers (column 6, lines 17-24). With regard to claim 21, the outer layers may have a basis weight of 200 grams per square meter (column 8, line 58). With regard to claim 24, Van Kerrebrouck discloses the polyester may be present

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in the form of a resin powder (column 7, lines 20-26). With regard to claim 26, the outer layers are needed to be denser than the core layer (column 8, lines 24-33). With regard to claims 27, 54, and 61, since the needling is only done to the outer layers, and Van Kerrebrouck disclose the needling only goes 10 mm deep into a 35 mm composite (column 8, lines 30-40), one can conclude that the outer layer is thinner at 10 mm than the core layer at 15 mm. With regard to claims 7, 9, and 22, the 10 mm outer layer and the 15 mm core layer would satisfy the thickness requirements of the unmolded laminate. With regard to claims 23, 42, and 43, the binder fibers would act as a thermosetting resin. With regard to claims 28, 55, and 59, the denser formation of the outer layers would make them more resistive. With regard to claims 29-31, 56-58, and 62-64, the ranges of the dtex of the fibers in the outer layer indicate that less than 20% of the fibers could be fine and more than 25% of the core layer fibers could be fine (column 3, lines 42-54).

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 39 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van Kerrebrouck.

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With regard to claims 39 and 41, Van Kerrebrouck does not disclose the thickness of the core layer after molding. However, adjusting thickness of the mold is an obvious modification to a person having ordinary skill in the art because the desirability of a different thickness could be easily adjusted in the molding process. It would have been obvious to one having ordinary skill in the art to make the core layer between 0.1 and 1.3 inches thick after molding, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

7. Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Van Kerrebrouck in view of Holtrop (U.S. Patent No. 4,851,283).

Van Kerrebrouck teaches the fibers of the core layer can be 3 dtex, but does not specifically say it can be below. Holtrop teaches that using fibers with a denier of about 1 in the core layer of a laminate improves the sound absorbing quality of the laminate. It would have been obvious to one having ordinary skill in the art to use smaller fibers in the core layer of Kerrebrouck in order to improve the sound absorbing quality of the laminate.

#### ***Allowable Subject Matter***

8. Claims 12-15 and 44-51 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The following is a statement of reasons for the indication of allowable subject matter: Claims 12 and 44 recite specific weight percentages for specific size fibers in each of the layers. Modification of the Van Kerrebrouck reference would not be obvious to obtain these values, given the stipulation that at least some of the fibers of the outer layers have to be finer than some of the fibers of the inner layer. Although other references teach the principle of having finer fibers for sound insulation in the inner core layer (US 6,322,658 to Byrna et al.; US 6,156,682 to Fletemier et al.; and US 6,008,149 to Copperwheat), these references all have filing dates that are later than Applicant's effective filing date.

### ***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: US 6,322,658 to Byrna et al.; US 6,156,682 to Fletemier et al.; and US 6,008,149 to Copperwheat.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeremy R. Pierce whose telephone number is (703) 605-4243. The examiner can normally be reached on Monday-Thursday 7-4:30 and alternate Fridays 7-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (703) 308-2414. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

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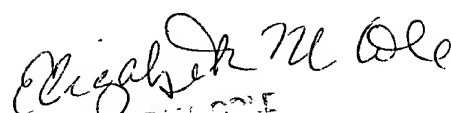
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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



Jeremy R. Pierce  
Examiner  
Art Unit 1771

February 4, 2003



ELIZABETH M. COLE  
PRIMARY EXAMINER